**LE1.5: Synthesizing Histories of Places and wrapping up the bundle**

**Purpose: synthesizing Histories of Places knowledge across home and school**--This lesson will help you synthesize the noticings and wonderings around place and histories of places from both your classroom lessons and from the family tool LE1.3. This synthesis work is important so that you can see **patterns** in students’ thinking, such as:

1. What *relationships do* students and families notice?
2. What features of places make them significant to students and families?
3. What do students and families do in these places?

This lesson has 2 parts:

1. The first is your own reflection on what you see in the Histories of Places chart from LE1.1, students’ drawings and wonderings from LE1.3, and the family tools in LE1.2 and 1.4.
2. The second part is to have a discussion with students about the LE1.5 classroom tool from this lesson. Engaging students in the synthesis work from part 1 will help you plan for this discussion.

**Engaging family and community knowledges and practices**

This lesson is an opportunity to put classroom observations and wonderings alongside family knowledges and practices around place. This sends an important signal to students that their family knowledge is valued and an important part of science learning.

| **Learning goals** | **Connections to NGSS** | **Assessment opportunities** |
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| By the end of this activity, students will:1. Describe places and practices that are important to them in terms of various timescales from the Histories of Places
2. Imagine more-than-human uses of places
3. Describe human decisions that have occurred in places
 | **Crosscutting Concepts:** Scale; Systems and System Models**Science Practices:** Asking questions and defining problems**Disciplinary Core Ideas:** ESS3.C: Human Impacts on Earth Systems (K-2) | 1. Filled out Histories of Places chart from LE1.1
2. Family tool in LE1.2 Histories of places walk
3. Student tool from LE1.3
4. Family tool LE1.4

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**Teacher Background Information**

Throughout this bundle, you have engaged students and families in noticings and wonderings about place and the various timescales within the Histories of Places framework. It is important to take some time now to think about all of the noticings and wonderings that have been shared both in the classroom and from families in order to establish a firm foundation in reasoning across timescales for the rest of the storyline.

**To Prepare for this lesson**

Gather all of the tools from LEs1.1-1.4 and reflect on what has been shared so far using the chart below. This chart does two things. First, it helps you keep track of what students and families share about the places that are important to them and why they are important. Second, you see the diversity of family practices in the places where they learn. For example, after you’ve synthesized information from students and families, you can share this with students to see if there is anything they would add (e.g., a new place they might add to the list, more information about why a place is important to their family, more information about what they do in a place). This will also give you ideas about **building partnerships with community-based organizations** that families name as important to them. These organizations contribute to students’ relationships with places, give you perspective on histories of communities with which your students identify, or even offer learning activities to enhance your investigations. Finally, you can also **map (using Google Maps, for example) the places that are important to familie**s and communities. Over time, this map could include the places where you are conducting your classroom investigations so that students can see that the places you investigate are also places that are important to them.

| **Places that are important to students and families** | **Why the places are important to students and families** | **Practices that students and families use the places for or do in the places** | **What time scales are students and families attending to?** | **What questions are they posing about those time scales?**  | **How do you see power and historicity reflected in the family and student tools?** |
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Now that you have completed this table, reflect on patterns you see in student and family thinking.

1. What are the *relationships*  students see?
2. What features of places make them significant to students and families?
3. What do students and families do in these places?
4. How are *power and historicity* showing up in family tools, classroom discussions, and student tools?

**Avoiding Potential Challenges**

* *Include family wonderings in with students’ wonderings from class:*  Sometimes when family tools from LE1.3 are slower to come in, it may seem more difficult to include them when you’re synthesizing information from class. Avoid this by sending home reminders to fill out the family tools and intentionally asking students to share what they discussed in their families even if they did not return the family tools so that students can see that their families’ ideas are truly valued and made a part of the classroom data.
* *Broaden what counts as sensemaking:* Remember that sometimes families’ and students’ sensemaking will not sound like scientists’ sensemaking. This is one way that non-dominant students’ and families’ experiences get discounted in science. Remember that sophisticated reasoning can be found in drawings, descriptions of places, and in seemingly simple phrases and words.
* *Encourage more-than-human perspective taking*: Descriptions of ecosystems are often framed in terms of how ecosystems are useful for humans. In order to engage in ethical deliberation about places, however, we need to support students in taking the perspective of more-than-humans in natural systems. How is this decision good for the trees? How is this place good for the worms? for the soil? Beginning to ask these questions will encourage students to take on broader perspectives when engaging in ethical deliberation and decision-making around ecosystems.
* *Encourage human connections to ecosystems:* It is common for science learning to position humans as disconnected or apart-from nature. This activity encourages thinking about connections between humans and the rest of the natural world and starting from assumptions of complex interdependence.

**Materials:**

Histories of Places chart from LE1.1

Student drawings from LE1.3

Family tools from LE 1.2 and LE1.4

Synthesis chart for LE1.5

**Time:** 30 minutes

**Instructional sequence:**

1. Remind students that they have now engaged in many explorations of place and histories of places. Point out all of the knowledge they shared in the Histories of Places chart, remind them of the exploration of places around the schoolyard, and the discussions that they had with their families about places that are important to them.
2. Explain to students that they are going to be putting all of that together today before we move on to exploring another aspect of places.
3. Show the chart below. Ask students: What places were important to us and our families and why?
	1. Ask students to share what they discussed with their families and record their answers. Ask students what they do in those places, what they’re wondering about in those places. You can ask students to share one connection they made to the Histories of Places chart and record that on the class charts from LE1.1 and their Histories of Places family walk in LE1.2
	2. NOTE: you can ask students to also draw or write their answers to these questions individually and then share with the class or add to the class chart.
4. Ask students to specifically think about who they share places with. If they have a hard time coming up with more-than-humans, ask specifically: Do we share these places with the water? soil? other animals besides humans? plants? Do you think those were there before humans got there?
5. Ask students: why do you think it’s important for us to understand and wonder about places that are important to us? Why is it important to think about and wonder about the different histories in those places? What does that help us do?

| Places that are important to is and our families and why | What do we DO or LEARN in these places? | Who do we share those places with? | What are we wondering about in those places? | What connections can we make to our Histories of Places chart?  |
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1. Explain to students that as they continue with their explorations of places, they’re going to be constantly going back and forth between explorations they do in school and explorations that they do with their families at home.